from the 1983 level of $216 million. The 1984 request amounts to 40 percent less for research and development, 5 percent more for enforcement, and 38 percent less for abatement and control. While the percentage reduction from the real 1983 funding level for abatement and control is about the same as that for research and development, the former account was reduced by $58 million while the latter was reduced by $11 million (in constant 1982 dollars). Full-time employment in the water quality program also will fall in 1984 (by approximately 15 percent). Personnel levels will be reduced by 29 percent in research and development, 5 percent in enforcement, and 16 percent in abatement and control. These data are presented in Table 6.

Explanation of Changes

Abatement and Control. The abatement and control subprogram is made up of six activities: state programs management, effluent standards and guidelines, grants assistance programs, water quality strategies implementation, water quality monitoring and analysis, and municipal source control.

Reduced federal resources for state program management imply an increased state responsibility. Some programs will be terminated, including studies conducted under the Great Lakes program (providing only what is necessary to maintain U.S. participation in the joint U.S.-Canadian Great Lakes Water Quality Agreement) and the Chesapeake Bay program. Decreases will occur in oversight activities for Section 106 supplementary grants to the states, and in resources for developing and overviewing delegated programs.

The 1984 effluent standards and guidelines program request represents a 29 percent real decrease from the 1983 level. This reduction reflects the agency's progress in developing effluent standards and guidelines. In addition to a 23 percent reduction in EPA personnel, there will be a 31 percent reduction in funding extramural (contract) activities for technical and litigation support.

More than one-half of the total decrease in water quality abatement and control occurs in the grants assistance program (not including funds for capital construction projects). In 1984, Section 106 supplementary grants, to assist states with water quality improvement efforts, will total $24 million, a reduction of 56 percent in real terms from the 1983 level of $54 million. The estimated funds that will be available in 1984 for obligation by states under Section 205(g) and 205(j) of the Clean Water Act for construction grants management and water quality management (about $115 million) is a reduction of about 28 percent in real terms below the amount

TABLE 6. EPA WATER QUALITY PROGRAM, 1981-1984 (By fiscal year)

	Actual Obligations		Budget Authority		Percent Change
	1981	1982	1983 (Estimated)	1984 (Requested)	1983-1984
			Millions of Dollars		
Nominal Dollars, Total	318	251	216	151	-30
Constant 1982 Dollars					
Abatement and Control	255	168	154	96	-38
Enforcement	33	29	24	25	+5
Research and Development	53	54	29	18	-40
Total	341	251	207	138	-33
			Permanent Full-Time Employees		
Abatement and Control	1,671	1,283	1,135	956	-16
Enforcement	662	618	528	501	-5
Research and Development	448	372	290	206	-29
Total	2,781	2,273	1,953	1,663	-15

Source: Congressional Budget Office, based on data obtained from EPA.

Note: Percent changes were calculated from annual budget figures before rounding and, therefore, represent actual differences. Budget figures in the table have been rounded to the nearest million and may not produce the same percent differences.

available in 1983 and is a 42 percent reduction compared to the amount available in 1981 (about $168 million). The Clean Lakes program will not be funded by the agency in 1984, leaving further work to the states. No wastewater treatment training grants will be funded in 1984.

There will be a net 3 percent real decrease in funding for water quality strategies and implementation, including a reduction of federal effort in dredge-and-fill permit review and in environmental emergency (oil spills) response and prevention. In most cases, these responsibilities will be shifted to the states. There will be no real change in funding or effort for ocean disposal permits compared to 1983, but the 1984 request for standards and regulations represents a 44 percent increase over the previous year. Additional funding will support technical assistance to the states in establishing water quality criteria and standards. This increase underscores EPA's shift from national criteria to more flexible local criteria and standards.

Under water quality monitoring and analysis, there will be a net real decrease of 8 percent. This program will emphasize assistance to the states in implementing a water quality-based approach to pollution control.

Finally, municipal source control will experience a net 35 percent real decrease in funding in 1984. This decrease is attributable to the transfer of NEPA compliance functions to EPA's interdisciplinary program and also to greater state responsibility for construction grants management.

Enforcement. The water quality enforcement subprogram consists of two elements: enforcement and permit issuance. Compared to 1983, EPA's 1984 request for the enforcement element will decrease by 4 percent, while the agency's 1984 request for the permit issuance will increase by 15 percent in real terms. Overall, the 1984 funding requested for the enforcement subprogram will be 5 percent higher in real terms over 1983 funding levels.

Under the water quality enforcement element, the following activities are carried out: NPDES permit compliance monitoring, administrative enforcement actions, and technical support for litigation against NPDES permit violators. The small reduction in funding for this element is the result of both increased delegation to the states and increased compliance rates for municipal and industrial sources.

The permit issuance element incorporates technical, administrative, and legal activities necessary for EPA to issue NPDES permits for the remaining 16 states and 4 territories without a fully delegated permit program. While the 1984 funding request for this activity is 15 percent higher in real terms than the 1983 funding level, the number of full-time employees will drop by 14 percent. The funding increase will be devoted

primarily to contractor support for reviewing industrial and municipal discharge waivers. The reduction in employees is attributable to EPA's reduced permit-writing workload because of delegation to the states and increased issuance of general permits.

EPA anticipates receiving over 1,500 discharge permit waiver requests from industry and municipalities seeking less stringent treatment requirements because of economic constraints or because discharging a lesser-quality effluent will not degrade the receiving waterway. These requests must be evaluated individually and can be a technically complex undertaking. The highest priority requests will be evaluated first (with contractor assistance) resulting in a backlog of variance applications that should persist for a number of years.

Research and Development. The research and development subprogram is divided into three main research areas: water quality, municipal wastewater, and industrial wastewater. All have decreased funding for 1984, with the greatest reduction occurring in industrial wastewater research (a 66 percent real reduction in 1984 compared to 1983). These research activities provide a scientific base for EPA and the states to use in establishing policies, guidelines, and standards.

Reductions in research resources are consonant with completion of research projects and a shift in research emphasis to support a water quality-based regulatory approach and a sound ocean disposal program. Major projects in three areas--health effects research involving municipal wastewater re-use and sludge disposal, development of water quality criteria documents for priority pollutants, and development of effluent guidelines for industries--will be completed by 1983. The primary objective of the research portion of the Great Lakes study, eutrophication research, will be achieved by 1983, with no further funding requested. In addition, some program elements have been incorporated into EPA's drinking water program or interdisciplinary program.

Water quality research efforts will be redirected to support EPA's shift from a technology-based regulatory strategy to a water quality-based strategy. With major long-term research on risk and health effects of priority pollutants largely complete or expected to be completed with issuance of BAT regulations for the remaining industrial categories in 1984, the agency is refocusing water quality research on developing site-specific water quality standards and the potential for meeting them with more stringent effluent controls. The ocean disposal research program will emphasize ecological impacts, hazard assessments, and biological monitoring techniques.

Outstanding Issues

- In the research and development subprogram, a reduction of 40 percent in real terms from 1983 levels is requested for 1984. This reduction follows a 1983 real reduction of 46 percent below 1982 obligations (there was no real change between 1981 and 1982). Over a two-year period, therefore, the water quality research and development program has undergone almost a 70 percent cutback. While these reductions reflect lower research needs because the effluent guideline promulgation process is nearing completion, EPA's new emphasis on a water quality-based control strategy may place new research burdens on the agency. EPA expects that the states will provide the resources to compensate for federal cutbacks. But it is not at all clear that the states will assume this responsibility, possibly jeopardizing EPA's overall shift toward water quality-based controls.

- In the abatement and control subprogram, the grants assistance programs will be reduced 60 percent in real terms from 1983 and 80 percent in real terms from 1981. Section 106 grants (general support for state water pollution control programs) will be cut by 56 percent; Clean Lakes grants to states will be eliminated; and training grants for professionals in the pollution control field will also be eliminated. Together, these represent almost one-half of the entire decrease in the water quality program. In addition, grants available under Sections 205(g) and 205(j) of the Clean Water Act—funds which assist state management efforts—will be reduced in 1984 by about 28 percent compared to 1983 levels. Compared to 1981, funds available to states in 1984 under Sections 205(g) and 205(j) will be reduced by about 42 percent. Despite these reductions, increased responsibility is being given to the states in all areas. While the original intent of the Clean Water Act was for the states to assume many federal programs, reduced federal funding for management and implementation of state water quality programs in combination with mounting budgetary pressure at the state level may affect the progress in water quality improvement efforts nationwide.

- In the abatement and control subprogram, the municipal source control activity (supplying management support to the construction grants program) will have 35 percent less funding in real terms from 1983 levels. EPA reports that this reduction reflects delegation of program responsibilities to six states. However, between 1982 and 1983 when nine states received such delegation,

real funding increased by 8 percent. Therefore, it is unclear whether any real relationship exists between the delegation of program management to the states and a consequent reduction in federal funds for managing the remaining program.

AIR QUALITY

In 1984, the air quality program will be the largest program in EPA's operating budget. The EPA 1984 budget request is $191 million, down from $212 million in 1983. Almost half of the 10 percent real reduction from the 1983 appropriation levels will occur in grant assistance to states under the abatement and control program. This will likely be accompanied by real budget reductions in state air programs, since many states will be unable or unwilling to make up the loss in federal funds. These smaller budgets for state air programs may cause administrative delays in processing permits for industry, slow or prevent the delegation of federally run programs to the states, and cancel the establishment of innovative state programs designed to administer air pollution controls more efficiently.

BACKGROUND

Air pollution is a problem for human health, property, and aesthetics. Control of visible discharges in urban industrial areas was among the first air pollution concerns. The problem of air pollution became more prominent in the late 1940s and early 1950s, when smog and isolated air pollution events began occurring in different parts of the United States. These incidents aroused interest in the short- and long-term health effects of air pollution, and eventually led to the passage of important federal legislation designed to control it.

Congressional Mandate

The focus of federal law is to establish air quality standards to protect health and welfare, and to ensure the development and maintenance of state air pollution programs to carry out both federal and local regulations. The forerunner of current federal air pollution legislation was the Clean Air Act Amendments of 1970. This law provided for development and enforcement of two kinds of standards for ambient air quality: "primary" standards, designed to protect human health; and "secondary" standards, designed to protect public welfare. With these categories in mind, EPA was to promulgate national ambient air quality standards for six major classes of so-called "criterion" pollutants: particulates, sulfur oxides,

hydrocarbons, carbon monoxide, oxides of nitrogen, and photochemical oxidants (such as ozone). States were to develop state implementation plans (SIPs) for EPA's approval, setting forth how they intended to achieve the national standards. The primary standards were to be achieved by 1975; secondary standards were to be achieved within a subsequent reasonable time period.

The 1970 act specified that ambient air quality standards were to be implemented uniformly throughout the country, but the emission limitations set by the states for existing sources to help attain these standards were allowed to vary. The 1970 act also required minimum national emission standards to be promulgated for new stationary sources (such as utility power plants). States could enact tougher standards for these new sources, but could not implement less stringent ones. These federal standards, called new source performance standards (NSPS), were to be promulgated starting in 1971 for specific categories of pollution sources and revised every four years thereafter.

The August 1977 amendments to the Clean Air Act changed some practices regarding national ambient air quality standards and new source performance standards. By December 31, 1980, and at five-year intervals thereafter, EPA was required to make a thorough review of the national ambient air quality standards. The 1970 act had only required a review "from time to time." The 1977 act also required EPA to promulgate by August 1978 a new list of major stationary source categories, and to promulgate NSPS for these categories by August 1982.

The 1977 amendments made significant changes in automobile emission control requirements, required prevention of "significant deterioration" in "clean" air areas that had air quality better than national standards, and established strict requirements for areas that failed to meet the standards. Deadlines for the reductions in emissions that had been required by the 1970 act were postponed for automobiles, trucks, motorcycles, and other vehicles. (These deadlines had already been postponed for one year by the Energy Supply and Environmental Coordination Act of 1974.)

The requirements preventing significant deterioration divided clean air regions into three classes, with the amount of air quality deterioration allowed varying with the class. For areas not meeting the national ambient standards, the 1977 amendments delayed the required date for attainment of primary standards to 1982 for some pollutants, and to 1987 for others. New sources in these nonattainment areas were required to attain a "lowest achievable emission rate" standard, defined as the most stringent emission

standard contained in any state plan for that category of source, or the most stringent emission limit achievable in practice, whichever was lower.

Program Accomplishments

Over the last decade, new laws, regulations, procedures, and policies on air pollution controls have produced a noticeable improvement in air quality. Air quality has improved in most urban areas and has remained stable in many others. Nevertheless, substandard air quality still characterizes some cities, and pollution growth still threatens some areas of the country.

In response to the Clean Air Act's mandate, EPA has focused on developing national ambient air quality standards, reviewing state implementation plans designed to attain the national standards, and developing emissions standards for various pollutants and sources. 8/ In 1971, EPA promulgated national ambient air quality standards for the six pollutants specified in the 1970 act (particulates, sulfur dioxide, hydrocarbons, carbon monoxide, oxides of nitrogen, and photochemical oxidants such as ozone). A seventh pollutant (lead) was added in 1978. EPA has been reviewing these standards as required by the law. A revised ozone standard was promulgated in 1979, and the hydrocarbon standard was revoked in 1981. In 1982, work continued on possible revisions to the carbon monoxide, nitrogen oxide, sulfur oxides, and particulate matter standards.

In 1982, substantial efforts were directed at eliminating the backlog of unprocessed SIPs. In August 1979, EPA released its list of the 64 categories or subcategories of major new stationary sources subject to new source emission standards, which the 1977 amendments had required by August 1978. Since that time, approximately 12 source categories have been deleted, usually because the categories were expected to show only limited growth. NSPS have been promulgated for a number of other categories, including a major one for coal-fired steam electric generating plants in

---

8. This latter area covers two programs: the NSPS and hazardous pollutants program. The NSPS program develops emission limits for specific categories of new pollution sources (such as utility plants and industrial boilers) and pollutants for which national ambient standards have been set (e.g., carbon monoxide and lead). The hazardous pollutants program develops emission limits covering specific plants and pollutants found to be hazardous, but not covered by national ambient standards.

1979. EPA has also promulgated NSPS for all of the 27 categories required by the 1970 amendments.

Beyond the six pollutants for which ambient criteria have been assigned, seven substances (asbestos, mercury, beryllium, vinyl chloride, benzene, radionuclides, and arsenic) have been listed by EPA as hazardous, under Section 112 of the 1977 act. Emission standards have been promulgated for four of these (asbestos, beryllium, mercury, and vinyl chloride). Work in 1982 continued toward promulgation of four benzene hazardous emission standards, proposal of a fifth benzene standard, and development of emission standards for pollutants from coke ovens.

Future Program Requirements

EPA must continue its revision of national ambient air quality standards and its issuance of emissions standards under the NSPS and hazardous air pollutants program. The 1977 amendments required EPA to complete its review of the ambient standards by December 31, 1980, and to review these standards every five years thereafter. Of the seven standards to be reviewed, however, only two have been completed—the ozone standard has been reviewed, and the hydrocarbon standard has been revoked. The current EPA schedule envisions promulgation of a carbon monoxide standard in 1983 and proposal of particulate, nitrogen dioxide, and sulfur dioxide standards in 1983. These three standards are to be promulgated in 1984.

The 1977 amendments require EPA to promulgate NSPS by August 1982 for the 64 types of sources listed in August 1979. While progress was made, this deadline was not met in 1982. The agency plans to continue efforts in this area for 1983 and 1984 to complete its requirement.

EPA also is required to develop emission standards for the hazardous pollutants it has listed. To date, EPA has listed seven substances but three (benzene, arsenic, and radionuclides) remain for which emission standards have not yet been promulgated. Four separate benzene standards covering different emission sources have been proposed, with another likely in 1983. Standards are being developed for radionuclides, but none have been proposed. Standards for arsenic are only under study. EPA plans to continue screening chemicals in 1983 and 1984 to determine which ones are hazardous. The agency also plans to develop a comprehensive plan to control toxic pollutants by 1984, taking into account control already achieved through other emission standards under the act.

AIR QUALITY AND THE 1984 BUDGET

The requested 1984 budget for the air quality program is approximately $191 million. This is a 14 percent reduction in real terms from the 1983 level of $212 million (see Table 7). The largest real decrease occurs in the research and development subprogram (18 percent). A 3 percent decrease occurs in the enforcement subprogram. The abatement and control program falls only 14 percent in real terms, although reductions in this subprogram account for 65 percent of the total budget decrease of the air program. Moreover, almost all of this reduction occurs in resource assistance to the states.

Full-time employment also is reduced by approximately 2 percent from 1983 levels. Like the funding changes, the anticipated major reductions in staff occur in the research and development subprogram. These data are presented in Table 7.

Explanation of Changes

Abatement and Control. The abatement and control subprogram consists of several activities: development of regulations for mobile and stationary sources, resource assistance and air quality management support for states, compliance certification for mobile sources, and air quality monitoring and trends assessments. Compared to 1983 funding levels, the 1984 budget request for all of abatement and control is 14 percent lower in real terms; compared to 1981 levels, it is 31 percent lower (see Table 7).

The budget cuts in the abatement and control subprogram are directed primarily at one area—direct grants to states. Traditionally, the federal government supplies 45 percent (on average) of state air quality budgets. In 1984, over 96 percent of the total budget reduction in abatement and control will occur in direct grants to states, or in the so-called Section 105 grants. The 1984 budget request for Section 105 grants is $70 million; this reflects a real decrease of 21 percent from the 1983 level and 34 percent from the 1981 level. EPA believes this reduction can occur without hurting program efforts for several reasons: states have already made considerable progress in developing and implementing SIPs; many unnecessary and duplicative air quality monitoring sites exist and can be eliminated at substantial savings; management efficiencies can be employed in most programs to reduce administrative costs; and agencies can impose fees on permits to help offset costs. The agency believes that with such savings in place, states will be able to pursue their current programs and even introduce some limited program innovations, such as emissions trading.

TABLE 7. EPA AIR QUALITY PROGRAM, 1981-1984 (By fiscal year)

	Actual Obligations		Budget Authority		Percent Change
	1981	1982	1983 (Estimated)	1984 (Requested)	1983-1984
			Millions of Dollars		
Nominal Dollars, Total	235	230	212	191	-10
Constant 1982 Dollars					
Abatement and Control	157	139	127	109	-14
Enforcement	32	28	20	19	-3
Research and Development	63	63	57	47	-18
Total	252	230	204	175	-14
			Permanent Full-Time Employees		
Abatement and Control	840	773	702	693	-1
Enforcement	501	446	334	332	-1
Research and Development	413	357	339	326	-4
Total	1,754	1,576	1,375	1,351	-2

SOURCE: Congressional Budget Office, based on data obtained from EPA.

Note: Percent changes were calculated from annual budget figures before rounding and, therefore, represent actual differences. Budget figures in the table have been rounded to the nearest million and may not produce the same percent differences.

The states counter, however, that such reductions in federal assistance cannot be made up by increasing state funds, since many states face their own severe financial constraints. Moreover, while most states will likely turn to increasing permit fees to provide funds for environmental programs, many do not have existing statutory authority to collect such fees. Thus, at least over the short term, states will be faced with either using more of their general revenue funds to maintain state air programs, or simply operate on a lower budget in light of federal reductions. While it is too early to tell, many have claimed that the cost of such budget reductions will be delays in state permit issuance to industry and a decline in the quality of permit review, failure to accept delegation of current federally run programs (delegation that is often counted on by the federal government to lower its own costs), and failure to establish innovative programs at the state level that may lower compliance costs (for example, emissions banking and "bubble" programs).

In other subprogram areas, most budget changes (including slight increases) are not accompanied by major changes in current efforts. Real funding reductions in the regulatory development activity partly reflect the use of fewer resources to meet lower program demands. For example, only 30 new source performance standards need to be proposed or promulgated in 1984, compared to 45 in 1983.

Enforcement. The enforcement subprogram is divided into stationary and mobile source activities. The 1984 budget for the overall subprogram is only 3 percent less in real terms than the 1983 budget, but it is roughly 39 percent lower in real terms than actual 1981 obligation levels. No significant changes from 1983 are indicated in the management and implementation of this program for 1984. In general, states are expected to fulfill a large share of enforcement responsibility in the face of lower federal regional involvement.

Research and Development. The research and development subprogram consists of research activities in four major areas: oxidants, hazardous air pollutants, mobile sources, and gases and particles. The requested 1984 budget for each of these elements is lower, reflecting an overall decline of 18 percent in real terms from 1983. Compared to 1981, the 1984 request has fallen by 25 percent in real terms.

Some budget reductions, particularly in the monitoring systems and quality assurance program activities, represent fund transfers to the Intermedia Program (of the Interdisciplinary Operating budget of EPA) which is outside of the air quality program. In most cases, however, the budget reductions reflect a trend begun in 1982: increasing funds for scientific assessment while imposing more than compensating reductions in

long-term research. This trend is designed to support immediate regulatory needs, through analysis and interpretation of available data. Less emphasis will be devoted to long-term research aimed at understanding basic health effects and the dynamics of the environment. For example, the 1984 budget request for scientific assessment is 98 percent higher in real terms than the 1982 budget; conversely, the 1984 request for health effects research is almost 50 percent less in real terms than in 1981. However, the amount cut (in 1982 dollars) during this period will be almost $13 million in health effects research compared to a real increase of only $2.6 million in scientific assessment.

The hazardous pollutants activity budget request calls for a 10 percent real increase in 1984. Most of this increase reflects intensified efforts to prepare health assessments for use by the agency in determining which pollutants should be listed as hazardous. In addition, the agency plans to increase in-house examination of dose-response studies concerning the respiratory toxicity of organic vapors. Such information will be used to help assess the relative hazards of individual pollutants.

Outstanding Issues

- In the abatement and control subprogram, resource assistance to the states in the form of direct grants is reduced in real terms for the third year in a row (by 21 percent from 1983 and by 33 percent from 1981 spending levels). In the face of similar state budget austerity, it may be difficult for states to maintain current real spending levels. The likely outcome expressed by many at the state level will be delays in processing and approving air quality permits for new industrial plants, failures to accept delegation of air programs now run by the federal government but designed to be turned over to the states, and inadequate state resources to establish and run new innovative programs designed to more efficiently improve air quality (for example, emissions banking) at less cost to industry.

- In the research and development subprogram, long-term research (which typically involves basic research directed at understanding health effects and the workings of the environment) continues to receive less funding, while scientific assessment activities that support development of standards for near-term regulatory deadlines receive slight increases. Compared to 1981, the 1984 request for health effects research has fallen roughly 50 percent in real terms. While some of these reductions involve program transfers, the majority reflect an overall reduction in EPA's long-

term research. This should not affect standards development in the near term, but it will reduce the overall body of knowledge concerning pollutant health effects needed for future standards development.

HAZARDOUS WASTE

The hazardous waste program is the third largest program in EPA's operating budget. The program is designed primarily to administer the Resource Conservation and Recovery Act of 1976 (RCRA, Public Law 94-580), which regulates the handling of hazardous waste from the point of manufacture through disposal. Obligations reached a peak of $141 million in 1981, then declined to $111 million in 1982. The 1984 budget request of $110 million is 10 percent lower in real terms than the 1983 budget level of $117 million. Almost one-quarter of the reduction will occur in financial assistance to the states. Such reductions may frustrate the federal government's goal of delegating program responsibility to the states.

BACKGROUND

Each year, nearly 50 million metric tons of hazardous waste is generated in the United States. Most of this is eventually disposed of in landfills. Land disposal, however, can result in groundwater contamination if seepage occurs. Drinking water can thus be contaminated, with adverse health effects. Other waste disposal methods, such as incineration, can also result in environmental pollution with potentially harmful effects on public health.

In the mid-1970s, national concern over this problem led to passage of federal legislation to ensure proper management and permitting for hazardous waste. This legislation provides the mandate for federal regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste.

Congressional Mandate

Federal law regulating hazardous waste is relatively new; the Resource Conservation and Recovery Act was enacted in 1976. The act established guidelines for the management of hazardous waste from generation to disposal, and instructed EPA to identify and list hazardous waste, develop a manifest system for tracking it, and establish performance standards and a permit system for its treatment, storage, and disposal.

Deadlines for accomplishing these goals were set, with the basic regulatory framework to have been completed by April 1978.

Under RCRA, states are encouraged to assume primary responsibility for hazardous waste programs so long as the state program is at least as stringent as the federal program. States receiving authorization to administer their own hazardous waste programs become eligible for federal grant assistance to do so. EPA expects that most states will be fully authorized or have an authorization application under review by 1985.

Program Accomplishments

Many of the deadlines set forth in RCRA were missed. Promulgation of basic regulations occurred primarily in 1980 and early 1981, rather than early in 1978. Evaluation and revision of the regulations has been an ongoing EPA activity.

Permit issuance for treatment, storage, and disposal facilities has proceeded much more slowly than planned. In fiscal year 1981 only one permit was issued. In 1982, EPA issued four permits, although the initial budget estimate for that year had been 100 permits. The 1983 budget estimate of 1,020 permits has been revised down to 750, and the 1984 estimate is for 575 permits. Approximately 10,000 hazardous waste treatment, storage, and disposal facilities must eventually be issued permits if they are to continue in operation.

Important regulations concerning disposal have also been delayed. After receiving public comments regarding proposed land disposal regulations in 1981, EPA determined that review and modification of the proposed regulations were necessary and that standards could not be promulgated until the fall of 1983. A court order resulting from State of Illinois v. Gorsuch directed EPA to promulgate revised regulations for hazardous waste land disposal by February 1, 1982. This deadline was shifted to July 15, 1982, after an unsuccessful appeal attempt by EPA. EPA issued interim final regulations in July 1982, but expects eventually to revise and expand these.

Future Program Direction

EPA's future efforts will concentrate on development of final hazardous waste rules; delegation of program responsibility to the states where applicable; compliance monitoring inspections of treatment, storage, and disposal facilities; and facility permit issuance. A new policy allowing permits for entire classes of storage and treatment facilities will be initiated to reduce application requirements and time required for permit